

# 2018 Current Fiscal Year Report: Research, Engineering, and Development Advisory Committee

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## 1. Department or Agency

Department of Transportation

## 2. Fiscal Year

2018

## 3. Committee or Subcommittee

Research, Engineering, and Development Advisory Committee

## 3b. GSA Committee No.

700

## 4. Is this New During Fiscal Year?

No

## 5. Current Charter

01/30/1989

## 6. Expected Renewal Date

## 7. Expected Term Date

## 8a. Was Terminated During Fiscal Year?

No

## 8b. Specific Termination Authority

## 8c. Actual Term Date

## 9. Agency Recommendation for Next Fiscal Year

Continue

## 10a. Legislation Req to Terminate?

Not Applicable

## 10b. Legislation Pending?

Not Applicable

## 11. Establishment Authority Statutory (Congress Created)

## 12. Specific Establishment Authority

49 U.S. Code §44508), as amended

## 13. Effective Date

11/03/1988

## 14. Committee Type

Continuing

## 14c. Presidential?

No

## 15. Description of Committee Scientific Technical Program Advisory Board

## 16a. Total Number of Reports

2

## 16b. Report Date Report Title

11/07/2017 Guidance on FY 2020 Research and Development Portfolio

05/30/2018 Recommendations on FY 2020 Research and Development Portfolio

## Number of Committee Reports Listed: 2

17a. Open 2 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 2

## Meetings and Dates

### Purpose

Full Committee Meeting for Guidance on FY 2020 Research and Development Portfolio

Full Committee for Recommendations on FY 2020 Research and Development Portfolio

### Start

10/11/2017

### End

- 10/11/2017

04/11/2018

- 04/11/2018

## Number of Committee Meetings Listed: 2

## Current FY Next FY

## 18a(1). Personnel Pmts to Non-Federal Members

\$0.00

\$0.00

## 18a(2). Personnel Pmts to Federal Members

\$11,119.04

\$11,119.04

## 18a(3). Personnel Pmts to Federal Staff

\$109,685.00

\$111,000.00

<b>18a(4). Personnel Pmts to Non-Member Consultants</b>	\$0.00	\$0.00
<b>18b(1). Travel and Per Diem to Non-Federal Members</b>	\$8,677.00	\$9,000.00
<b>18b(2). Travel and Per Diem to Federal Members</b>	\$0.00	\$0.00
<b>18b(3). Travel and Per Diem to Federal Staff</b>	\$9,734.00	\$11,000.00
<b>18b(4). Travel and Per Diem to Non-member Consultants</b>	\$0.00	\$0.00
<b>18c. Other(rents,user charges, graphics, printing, mail, etc.)</b>	\$0.00	\$0.00
<b>18d. Total</b>	\$139,215.04	\$142,119.04
<b>19. Federal Staff Support Years (FTE)</b>	1.00	1.00

**20a. How does the Committee accomplish its purpose?**

The REDAC meets twice a year, in the fall and in the spring. During the fall meeting, the Committee provides advice on how FAA should invest its R&D funding in the coming portfolio development process. In the fall, the Committee provides guidance for the FY+3 R&D portfolio. During the spring meeting, the Committee reviews the proposed R&D portfolio, and provides additional recommendations for the FY+2 R&D portfolio. The FAA tracks the implementation of these recommendations in the REDAC Database. There are five standing subcommittees that support the REDAC by conducting reviews in the summer and winter for the following research areas: Aircraft Safety; NAS Operations; Environment and Energy; Airports; and Human Factors. During the summer, the subcommittees work with the sponsors and performers to conduct detailed program reviews. During the winter, the subcommittees conduct detailed reviews of the proposed R&D portfolios.

**20b. How does the Committee balance its membership?**

In accordance with the Federal Aviation Administration Research, Engineering, and Development Authorization Act of 1990, Title IX, Subtitle C, Public Law 101-508, dated November 5, 1990, current committee members represent the following categories: Universities and Research Centers-1; Associations-2; Consumers-3; Other Government Agencies-1 Total - 7

**20c. How frequent and relevant are the Committee Meetings?**

The Committee meets an average of two times per year and conducts a number of subcommittee and working group meetings. As discussed earlier, in fiscal year 2018, the Committee provided very useful recommendations on FAA's research and development investments and resource utilization. These recommendations allowed FAA to produce an R&D investment portfolio that reflects the needs of its customer and stakeholder community. Furthermore, because the Committee includes subject matter experts in the fields of aviation and aerospace, the Committee is able to help FAA identify possible leveraging and collaborating opportunities for R&D efforts with industry and other

government agencies. These partnerships have the potential to save tax dollars. The Committee provides a valuable resource to FAA for obtaining feedback from its customer and stakeholder groups. The Committee and its subcommittees, including ad hoc subcommittees, are used by organizations throughout FAA as a means to access its customer community, its stakeholders and subject matter experts in aviation-related areas.

**20d. Why can't the advice or information this committee provides be obtained elsewhere?**

The Committee provides the FAA with an inexpensive and effective mechanism for obtaining advice on R&D issues from the nation's leading experts in aviation. Regularly scheduled committee meetings allow FAA to plan tasks and effectively utilize the intellectual capital that the Committee provides. Each year, FAA involves the Committee in reviewing planned R&D investments. FAA also engages the Committee to help coordinate FAA collaborative R&D activities with industry and other Government agencies such as NASA and DoD. Obtaining such information from other sources would be less efficient and more costly and time consuming. The Committee also supports the Agency as it moves towards the Next Generation Air Transportation System, the integration of UAS in the NAS, Cybersecurity protocols, endeavors in Commercial Space, Electric Propulsion Vehicles, and Urban Air Mobility, as well as, the development of a more comprehensive, purposeful National Aviation Research Landscape.

**20e. Why is it necessary to close and/or partially closed committee meetings?**

N/A

**21. Remarks**

**Designated Federal Officer**

Shelley Yak Director, William J. Hughes Technical Center

<b>Committee Members</b>	<b>Start</b>	<b>End</b>	<b>Occupation</b>	<b>Member Designation</b>
Bertapelle, Joseph	06/09/2011	10/01/2018	JetBlue	Representative Member
Hansman, John	05/01/2010	10/01/2018	Massachusetts Institute of Technology	Special Government Employee (SGE) Member
Holder, Barbara	03/01/2017	03/01/2019	Honeywell	Representative Member
Hylander, Kenneth	07/08/2014	07/08/2018	Flight Safety Foundation	Representative Member
Oswald, Christopher	12/21/2012	10/01/2018	Airports Council International-North America	Representative Member
Prusak, Leo	03/01/2017	03/01/2019	Passur	Representative Member
Redhead, Ian	08/07/2012	10/01/2018	Kansas City International Airport	Representative Member
Shin, Jaiwon	12/21/2012	10/01/2018	NASA	Regular Government Employee (RGE) Member
Bowles, Gregory [Aircraft Safety]	02/10/2017	02/10/2019	General Aviation Manufacturers Association (GAMA)	Representative Member

Crowley, John [Aircraft Safety]	07/01/2018 07/01/2020	U.S. Army Aeromedical Research Laboratory	Regular Government Employee (RGE) Member
Kmetz, Christopher [Aircraft Safety]	05/01/2018 05/01/2020	Pratt and Whitney	Representative Member
Lacher, Andrew [Aircraft Safety]	07/17/2018 07/17/2020	MITRE/CAASD	Representative Member
Mangie, James [Aircraft Safety]	07/17/2018 07/17/2020	Delta Air Lines	Representative Member
Polland, David [Aircraft Safety]	07/31/2018 07/31/2020	Boeing	Representative Member
Radke, Jeff [Aircraft Safety]	02/10/2017 02/10/2019	Honeywell	Representative Member
Brammell, Sarah [Airports]	02/09/2018 02/09/2020	Environmental Resources Solutions	Representative Member
Costa, Evanicio [Airports]	03/01/2017 03/01/2019	Boeing	Representative Member
Crystal, Mark [Airports]	03/01/2017 03/01/2019	Air Line Pilots Association	Representative Member
Gongal, Shailesh [Airports]	07/29/2016 07/29/2018	MassPort Authority	Representative Member
Griffin, Matt [Airports]	07/29/2018 07/29/2020	Airport Consultants Council	Representative Member
Hubbard, Sarah [Airports]	02/09/2018 02/09/2020	Purdue University	Representative Member
Juranovic, Eduardo [Airports]	07/29/2018 07/29/2020	Boeing	Representative Member
Marsh, Scott [Airports]	02/09/2016 02/09/2018	Port Authority of New York and New Jersey	Representative Member
Sabatine, Melissa [Airports]	07/29/2018 07/29/2020	American Association of Airport Executives	Representative Member
Alonso, Juan [Environment and Energy]	05/01/2018 05/01/2020	Stanford University	Representative Member
Alterman, Steve [Environment and Energy]	05/01/2018 05/01/2020	Cargo Airlines Association	Representative Member
Dryer, Jay [Environment and Energy]	05/01/2018 05/01/2020	NASA	Regular Government Employee (RGE) Member
Dudebout, Rudy [Environment and Energy]	05/01/2016 05/01/2018	Honeywell	Representative Member
Duke, Jennifer [Environment and Energy]	12/12/2013 12/12/2019	Pratt and Whitney	Representative Member
Etter, Charles [Environment and Energy]	05/01/2018 05/01/2020	Gulfstream	Representative Member
Hamburg, Steven [Environment and Energy]	05/01/2018 05/01/2020	Environmental Defense Fund	Representative Member
Kosanchick, Melvin [Environment and Energy]	10/23/2017 10/23/2019	Boeing	Representative Member
Lancaster, Sandra [Environment and Energy]	05/01/2018 05/01/2020	Dallas Fort Worth Airport	Representative Member
Leo, Flavio [Environment and Energy]	02/10/2017 02/10/2019	MassPort Authority	Representative Member
Mavris, Dimitri [Environment and Energy]	05/01/2018 05/01/2020	Georgia Institute of Technology	Representative Member
Pagliarello, Melinda [Environment and Energy]	02/10/2017 02/10/2019	Airports Council International - NA	Representative Member
Presti, Susan [Environment and Energy]	05/01/2018 05/01/2020	International Air Cargo Association	Representative Member
Preston, Katherine [Environment and Energy]	05/01/2018 05/01/2020	HMMH	Representative Member

Riegle, Leslie [Environment and Energy]	05/01/2018 05/01/2020	Aerospace Industries Association	Representative Member
Smith, Edward [Environment and Energy]	05/01/2018 05/01/2020	General Aviation Manufacturers Association	Representative Member
Ternieden, Claudio [Environment and Energy]	05/01/2016 05/01/2018	Concurrent Technologies Corporation	Representative Member
Voorhees, William [Environment and Energy]	05/01/2016 05/01/2018	Propulsion and Power Engineering, U.S. Navy	Regular Government Employee (RGE) Member
Wuebbles, Don [Environment and Energy]	05/01/2016 05/01/2018	University of Illinois - Earth, Society and Environment	Representative Member
Young, Nancy [Environment and Energy]	05/01/2018 05/01/2020	Airlines for America	Representative Member
Zarubiak, Darcy [Environment and Energy]	05/01/2018 05/01/2020	RoVolo	Representative Member
Zelina, Joseph [Environment and Energy]	04/24/2018 04/24/2020	GE Aviation	Representative Member
Barhydt, Richard [Human Factors (REDACTED)]	06/03/2018 06/03/2020	NASA	Regular Government Employee (RGE) Member
DeSenti, Chris [Human Factors (REDACTED)]	08/07/2018 08/07/2020	MITRE	Representative Member
Jacobsen, Alan [Human Factors (REDACTED)]	08/07/2018 08/07/2020	Boeing	Representative Member
Ma, Maggie [Human Factors (REDACTED)]	05/01/2017 05/01/2019	Boeing	Representative Member
McKenney, David [Human Factors (REDACTED)]	07/23/2017 07/23/2019	Air Line Pilots Association	Representative Member
Naik, Rajesh [Human Factors (REDACTED)]	02/10/2017 02/10/2019	Air Force Research Laboratory, 711th Human Performance Wing	Regular Government Employee (RGE) Member
Rowe, Leah [Human Factors (REDACTED)]	02/10/2017 02/10/2019	Air Force Research Laboratory - Science and Technology Research	Regular Government Employee (RGE) Member
Smith, Phillip [Human Factors (REDACTED)]	08/07/2018 08/07/2020	Ohio State University	Representative Member
Woods, David [Human Factors (REDACTED)]	06/03/2016 06/03/2018	Ohio State University	Representative Member
Cavolowsky, John [NAS Operations]	05/01/2016 05/01/2018	NASA	Regular Government Employee (RGE) Member
Holmes, Bruce [NAS Operations]	05/01/2018 05/01/2020	Holmes Consulting	Representative Member
Kuchar, James [NAS Operations]	12/05/2016 12/05/2018	Massachusetts Institute of Technology - Lincoln Laboratory	Representative Member
Steltzer, Emily [NAS Operations]	03/10/2017 03/10/2019	MITRE	Representative Member
Weber, Mark [NAS Operations]	05/01/2018 05/01/2020	NOAA OAR	Representative Member
Zellweger, Andres [NAS Operations]	05/01/2018 05/01/2020	Aviation Consultant	Representative Member

**Number of Committee Members Listed: 61**

## Narrative Description

The REDAC and its standing subcommittees are completely engaged in providing advice and recommendations on FAA's portfolio of research and development projects. The Full REDAC meets twice each year to review and approve the work of the subcommittees and to provide guidance to the FAA on portfolio of projects and then again review proposed

portfolio measures developed using their guidance. The standing subcommittees do the same activities at a much more detailed level, working with the research performers. Subcommittees also review the execution of these projects to ensure they are directed toward their original intent, are of high quality, and are achieving satisfactory progress.

**What are the most significant program outcomes associated with this committee?**

Checked if Applies

- |   |                                     |
|---|-------------------------------------|
| Improvements to health or safety                  | <input type="checkbox"/>            |
| Trust in government                               | <input type="checkbox"/>            |
| Major policy changes                              | <input type="checkbox"/>            |
| Advance in scientific research                    | <input type="checkbox"/>            |
| Effective grant making                            | <input type="checkbox"/>            |
| Improved service delivery                         | <input type="checkbox"/>            |
| Increased customer satisfaction                   | <input type="checkbox"/>            |
| Implementation of laws or regulatory requirements | <input type="checkbox"/>            |
| Other   | <input checked="" type="checkbox"/> |

**Outcome Comments**

The Committee's work is required by legislation and meets this requirement through meetings, information sharing, partnering, etc. The Agency relies on the Committee's work to develop its research and development portfolio. The ad hoc working groups provide the Agency with expertise to help address specific issues.

**What are the cost savings associated with this committee?**

Checked if Applies

- |                            |                                     |
|----------------------------|-------------------------------------|
| None                       | <input type="checkbox"/>            |
| Unable to Determine        | <input checked="" type="checkbox"/> |
| Under \$100,000            | <input type="checkbox"/>            |
| \$100,000 - \$500,000      | <input type="checkbox"/>            |
| \$500,001 - \$1,000,000    | <input type="checkbox"/>            |
| \$1,000,001 - \$5,000,000  | <input type="checkbox"/>            |
| \$5,000,001 - \$10,000,000 | <input type="checkbox"/>            |
| Over \$10,000,000          | <input type="checkbox"/>            |
| Cost Savings Other         | <input type="checkbox"/>            |

**Cost Savings Comments**

The Committee provides the Agency advice from experts outside of the Agency. The Agency would not be able to pay to have these resources. The members do not get paid for their time.

**What is the approximate Number of recommendations produced by this committee for the life of the committee?**

829

**Number of Recommendations Comments**

The Committee provides recommendations to the Administrator twice a year. They also provide recommendations from the ad hoc working groups and their reports. From 2005-2018, the Agency has received 829 recommendations.

**What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?**

75%

**% of Recommendations Fully Implemented Comments**

The Agency receives and reviews all recommendations from the Committee when formulating the research and development portfolio. Some of the recommendations the Agency can or cannot accept dependent upon the scope of the recommendation.

**What is the approximate Percentage of these recommendations that have been or will be Partially implemented by the agency?**

0%

**% of Recommendations Partially Implemented Comments**

All of the Committee's recommendations are considered when the Agency formulates its research portfolio. The recommendations provided by the Committee help the Agency prioritize the funding and various research programs.

**Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?**

Yes ☒ No ☐ Not Applicable ☐

**Agency Feedback Comments**

The FAA responds in writing back to the Committee Chair with a letter signed by the Administrator with our intended actions on the REDAC's recommendations. Additional feedback is provided within the Subcommittee meetings where the members are updated on the status of the implementation of the recommendations. The FAA tracks the implementation of all of the recommendations in a database and, at each meeting, reports the status to the recommending subcommittee, until the subcommittee votes to close the

recommendation.

**What other actions has the agency taken as a result of the committee's advice or recommendation?**

	Checked if Applies
Reorganized Priorities	<input checked="" type="checkbox"/>
Reallocated resources	<input checked="" type="checkbox"/>
Issued new regulation	<input type="checkbox"/>
Proposed legislation	<input type="checkbox"/>
Approved grants or other payments	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>

**Action Comments**

The Agency has requested the assistance of the Committee to conduct various studies. Ad hoc working groups may be formed to provide guidance to the Agency on specific topics of interest.

**Is the Committee engaged in the review of applications for grants?**

No

**Grant Review Comments**

NA

**How is access provided to the information for the Committee's documentation?**

	Checked if Applies
Contact DFO	<input checked="" type="checkbox"/>
Online Agency Web Site	<input checked="" type="checkbox"/>
Online Committee Web Site	<input checked="" type="checkbox"/>
Online GSA FACA Web Site	<input checked="" type="checkbox"/>
Publications	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

**Access Comments**

N/A